

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

To: RAUSCHENBACH, Kurt P.O. Box 387 Bedford MA 01730 UNITED STATES OF AMERICA		(PCT Rule 44.1) Date of mailing <i>(day/month/year)</i> 20/04/2006	
Applicant's or agent's file reference VAR-001CIPPC		FOR FURTHER ACTION See paragraphs 1 and 4 below	
International application No. PCT/US2005/008709		International filing date <i>(day/month/year)</i> 16/03/2005	
Applicant VARIAN SEMICONDUCTOR EQUIPMENT ASSOCIATES, INC.			

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:
 The applicant is entitled, if he so wishes, to amend the claims of the international Application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the International Search Report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
 1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 338.82.70

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until **30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the International Searching Authority European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Gennaro Cappiello
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PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference VAR-001CIPPC	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2005/008709	International filing date (day/month/year) 16/03/2005	(Earliest) Priority Date (day/month/year) 22/03/2004
Applicant VARIAN SEMICONDUCTOR EQUIPMENT ASSOCIATES, INC.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 1

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US2005/008709

A. CLASSIFICATION OF SUBJECT MATTER

H01J37/32 H01J37/32

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H01J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	• US 5 556 501 A (COLLINS ET AL) 17 September 1996 (1996-09-17) column 21, line 44 - line 67 column 21, line 15 - line 23 figures 1,2	1,2,4, 10-14, 17,18
Y	----- • US 2003/201722 A1 (APPLEYARD NICHOLAS JOHN) 30 October 2003 (2003-10-30) paragraph [0062] figures 4,8,9	3,5-9, 16, 19-21, 23,26,27
Y	----- • US 6 518 190 B1 (LILL THORSTEN ET AL) 11 February 2003 (2003-02-11) column 4, line 24 - line 38 -----	3,5-7, 19,20
Y	----- • US 6 518 190 B1 (LILL THORSTEN ET AL) 11 February 2003 (2003-02-11) column 4, line 24 - line 38 -----	8,9
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

17 March 2006

Date of mailing of the international search report

20/04/2006

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
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Authorized officer

Capostagno, E

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US2005/008709

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 540 824 A (YIN ET AL) 30 July 1996 (1996-07-30) column 3, line 44 - column 4, line 13	16
A	figures 2b,2d -----	13,17
Y	US 6 083 363 A (ASHTIANI ET AL) 4 July 2000 (2000-07-04) column 6, line 48 - column 7, line 46	21,23, 26,27
X	figures 1,5 ----- EP 0 810 816 A (APPLIED MATERIALS, INC) 3 December 1997 (1997-12-03) column 4, line 44 - column 5, line 24	1,2,4, 11,12,14
	figures 1,2 -----	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2005/008709

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5556501	A	17-09-1996	NONE	
US 2003201722	A1	30-10-2003	NONE	
US 6518190	B1	11-02-2003	WO 0148792 A1	05-07-2001
US 5540824	A	30-07-1996	AT 211304 T	15-01-2002
			DE 69524683 D1	31-01-2002
			DE 69524683 T2	08-08-2002
			EP 0694949 A2	31-01-1996
			JP 8213196 A	20-08-1996
US 6083363	A	04-07-2000	JP 2001500322 T	09-01-2001
			WO 9901888 A1	14-01-1999
EP 0810816	A	03-12-1997	JP 10083898 A	31-03-1998
			US 6353206 B1	05-03-2002